

April 7th, 2020



Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

Extreme Cold-Freezing Impacts

****Warm temperatures this week will be followed by several days of freezing chances this weekend into early next week. This could have one or more nights with freezing and lows well into the 20s in northern areas.**

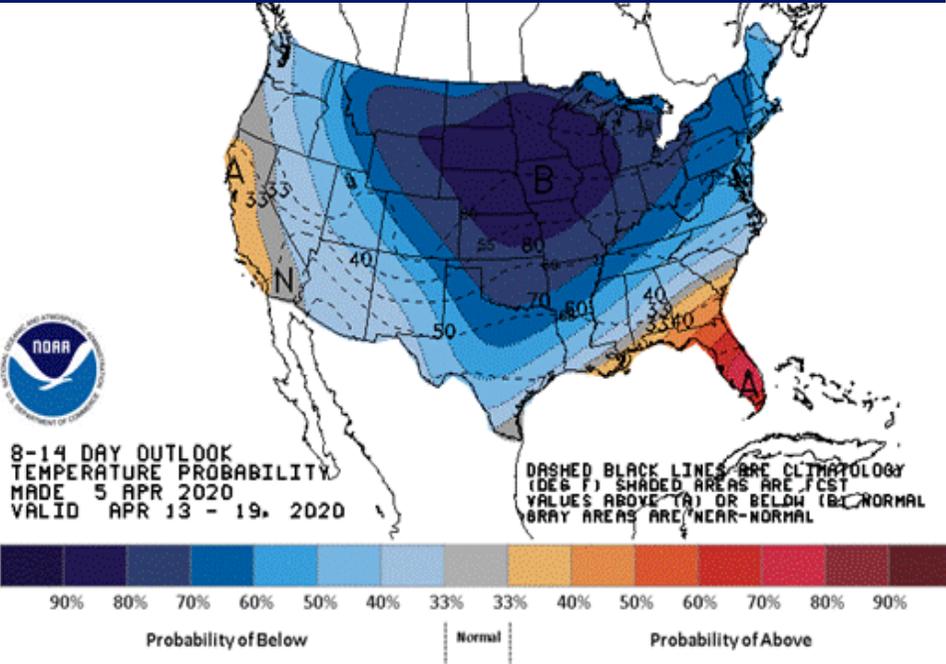
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Impacts

- The most risk lies with horticultural crops, tree fruits and new plantings.
- Early warmth has perennials at risk.
- Several days of continued cold soils

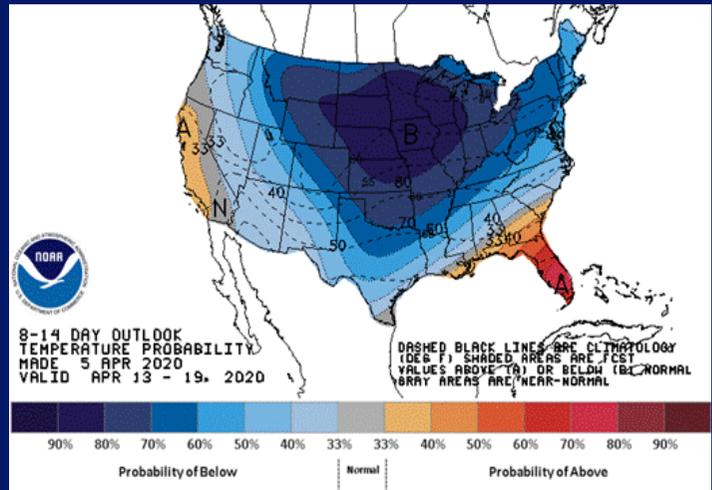
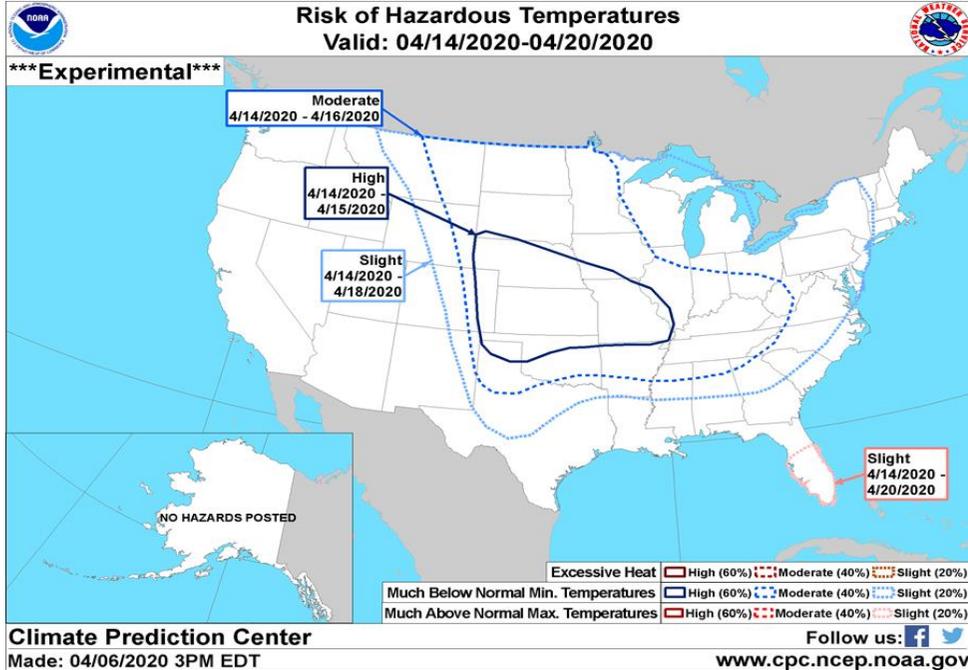
Action

- Take action to avoid freeze risk, possible several days.
- Monitor forecast updates.
- Delay planting sensitive plants if possible.
- Share with vulnerable partners and encourage action to avoid issues.



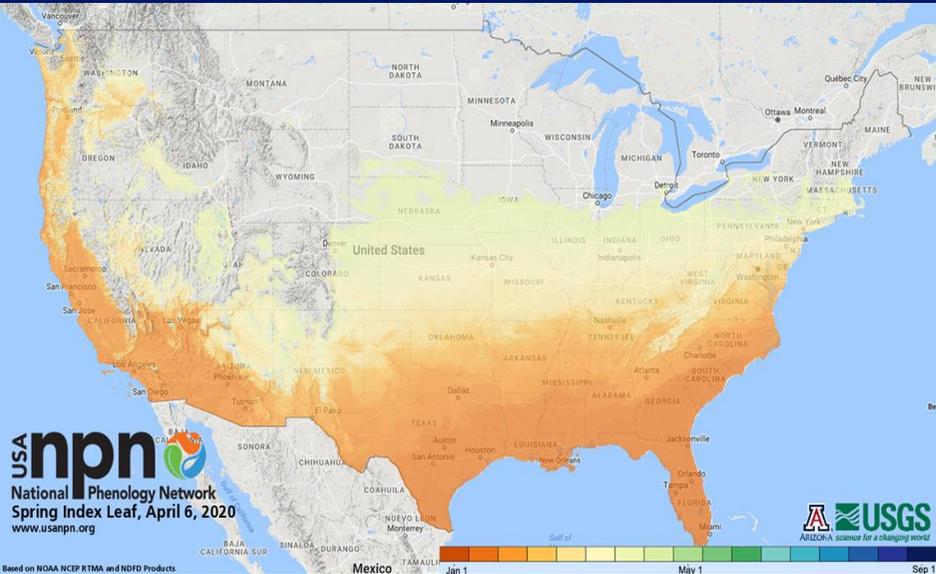
Cold Temps

- Cold likely through mid-April at least.
- High risk hazard area below 15th percentile on temperature and freezing area most likely into next week.
- Cold could last a couple weeks longer.



Phenology

- First leaf index from National Phenology Network. Green-up well into plains and Midwest.
- Various plants at different risk based on plant and phenology.
- Large area at some risk due to early warmth.

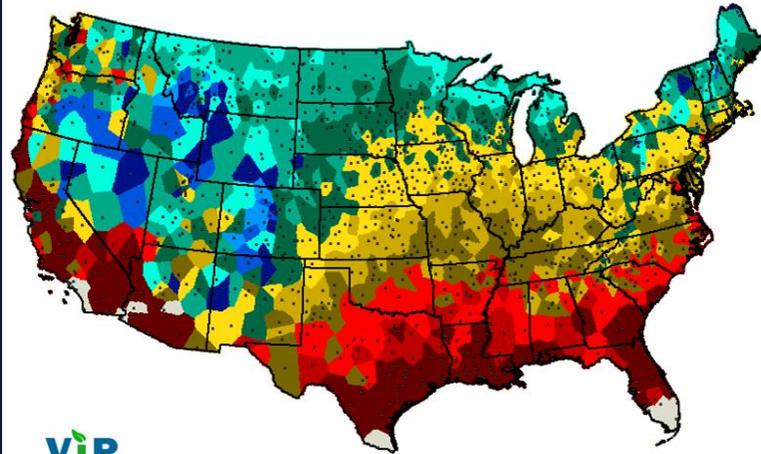


Frost/Freeze Dates

- Median last spring 32°F and 28°F maps nationally.
- Climatologically this freezing event is still early.
- The phenology stage (shown in previous slide) shows how early conditions are this year.

Climatological Date of Median Last 32°F Freeze
For years 1980-81 to 2009-10
Freeze year beginning July 1st
Median defined as the 50th Percentile

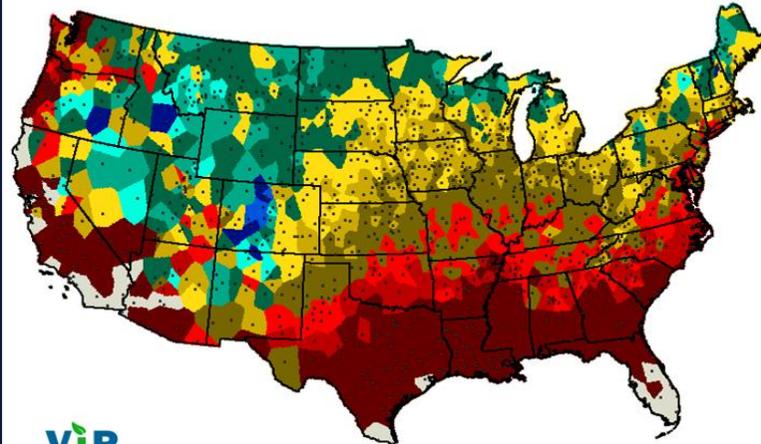
Mar 10 or Earlier	Apr 1 - 10	May 1 - 10	Jun 1 - 10
Mar 11 - 20	Apr 11 - 20	May 11 - 20	Jun 11 - 20
Mar 21 - 31	Apr 21 - 30	May 21 - 31	Jun 21 or Later
			No Freeze



ViP
Vegetation Impact Program

Climatological Date of Median Last 28°F Freeze
For years 1980-81 to 2009-10
Freeze year beginning July 1st
Median defined as the 50th Percentile

Mar 10 or Earlier	Apr 1 - 10	May 1 - 10	Jun 1 - 10
Mar 11 - 20	Apr 11 - 20	May 11 - 20	Jun 11 - 20
Mar 21 - 31	Apr 21 - 30	May 21 - 31	Jun 21 or Later
			No Freeze



ViP
Vegetation Impact Program



Issues

- Several days of cold/freezing are possible.
- Cold-impacted areas are hard to define because of multiple combinations.
- Watch for developing conditions locally.

Impacts

- **Plains**: Winter wheat may be susceptible to below freezing temperatures. Newborn livestock may be affected especially if accompanied by wetness.
- **Midwest**: Soils will cool, slowing chance for additional planting. Limit to soil drying. *Delay planting to avoid seeds sitting in cold soils.
- **Widespread**: Fruit trees/perennials may be susceptible to freeze. Be ready to mitigate if possible. New plantings/specialty crops, *avoid planting or be ready to mitigate if planting.

*****Check with local extension/partners on additional information for dealing with cold.***

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Resources & Partners

USDA Climate Hubs
<https://www.climatehubs.usda.gov/>

National Weather Service
<https://www.weather.gov/>

Climate Prediction Center
<https://www.cpc.ncep.noaa.gov/>

Midwest Regional Climate Center
<https://mrcc.illinois.edu/>

National Phenological Network
<https://www.usanpn.org/usa-national-phenology-network>



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